

OICE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/929,266

DATE: 08/23/2001

TIME: 17:10:23

Input Set : A:\W108365.txt

Output Set: N:\CRF3\08162001\I929266.raw

4 <110> APPLICANT: Brian T. Chait
5 Darin R. Latimer
6 Paul M. Lizardi
7 Eric R. Kershnar
8 Jon S. Morrow
9 Matthew E. Roth
10 Martin J. Mattessich
11 Kevin J. McConnell
13 <120> TITLE OF INVENTION: ULTRA-SENSITIVE DETECTION SYSTEMS
16 <130> FILE REFERENCE: 01173.0003U2
C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/929,266
C--> 18 <141> CURRENT FILING DATE: 2001-08-13
18 <150> PRIOR APPLICATION NUMBER: 60/224,939
19 <151> PRIOR FILING DATE: 2000-08-11
21 <150> PRIOR APPLICATION NUMBER: 60/283,498
22 <151> PRIOR FILING DATE: 2000-04-12
24 <160> NUMBER OF SEQ ID NOS: 33
26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 12
30 <212> TYPE: PRT
31 <213> ORGANISM: Artificial Sequence ✓
33 <220> FEATURE:
34 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
35 construct
37 <400> SEQUENCE: 1
38 Cys Gly Gly Gly Asp Pro Gly Gly Gly Arg
39 1 5 10
41 <210> SEQ ID NO: 2
42 <211> LENGTH: 11
43 <212> TYPE: PRT
44 <213> ORGANISM: Artificial Sequence ✓
46 <220> FEATURE:
47 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
48 construct
50 <400> SEQUENCE: 2
51 Ala Gly Ser Leu Asp Pro Ala Gly Ser Leu Arg
52 1 5 10
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 13
56 <212> TYPE: PRT
57 <213> ORGANISM: Artificial Sequence ✓
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
61 construct
63 <400> SEQUENCE: 3
64 Ala Gly Ser Met Leu Asp Pro Ala Gly Ser Met Leu Arg

ENTERED

P. 5

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65 1 5 10
67 <210> SEQ ID NO: 4
68 <211> LENGTH: 11
69 <212> TYPE: PRT
70 <213> ORGANISM: Artificial Sequence ✓
72 <220> FEATURE:
73 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
74 construct
76 <400> SEQUENCE: 4
77 Ala Gly Ser Leu Ala Asp Pro Gly Ser Leu Arg
78 1 5 10
80 <210> SEQ ID NO: 5
81 <211> LENGTH: 11
82 <212> TYPE: PRT
83 <213> ORGANISM: Artificial Sequence ✓
85 <220> FEATURE:
86 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
87 construct
89 <400> SEQUENCE: 5
90 Ala Leu Ser Leu Ala Asp Pro Gly Ser Gly Arg
91 1 5 10
93 <210> SEQ ID NO: 6
94 <211> LENGTH: 11
95 <212> TYPE: PRT
96 <213> ORGANISM: Artificial Sequence ✓
98 <220> FEATURE:
99 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
100 construct
102 <400> SEQUENCE: 6
103 Ala Leu Ser Leu Gly Asp Pro Ala Ser Gly Arg
104 1 5 10
106 <210> SEQ ID NO: 7
107 <211> LENGTH: 11
108 <212> TYPE: PRT
109 <213> ORGANISM: Artificial Sequence ✓
111 <220> FEATURE:
112 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
113 construct
115 <400> SEQUENCE: 7
116 Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg
117 1 5 10
119 <210> SEQ ID NO: 8
120 <211> LENGTH: 11
121 <212> TYPE: PRT
122 <213> ORGANISM: Artificial Sequence ✓
124 <220> FEATURE:
125 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
126 construct
128 <400> SEQUENCE: 8

RAW SEQUENCE LISTING

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```

129 Ala Asp Pro Gly Ser Leu Ala Gly Ser Leu Arg
130 1 5 10
132 <210> SEQ ID NO: 9
133 <211> LENGTH: 357
134 <212> TYPE: PRT
135 <213> ORGANISM: Homo sapiens
137 <400> SEQUENCE: 9
138 Met Ser Ala Ile Gln Ala Ala Trp Pro Ser Gly Thr Glu Cys Ile Ala
139 1 5 10 15
140 Lys Tyr Asn Phe His Gly Thr Ala Glu Gln Asp Leu Pro Phe Cys Lys
141 20 25 30
142 Gly Asp Val Leu Thr Ile Val Ala Val Thr Lys Asp Pro Asn Trp Tyr
143 35 40 45
144 Lys Ala Lys Asn Lys Val Gly Arg Glu Gly Ile Ile Pro Ala Asn Tyr
145 50 55 60
146 Val Gln Lys Arg Glu Gly Val Lys Ala Gly Thr Lys Leu Ser Leu Met
147 65 70 75 80
148 Pro Trp Phe His Gly Lys Ile Thr Arg Glu Gln Ala Glu Arg Leu Leu
149 85 90 95
150 Tyr Pro Pro Glu Thr Gly Leu Phe Leu Val Arg Glu Ser Thr Asn Tyr
151 100 105 110
152 Pro Gly Asp Tyr Thr Leu Cys Val Ser Cys Asp Gly Lys Val Glu His
153 115 120 125
154 Tyr Arg Ile Met Tyr His Ala Ser Lys Leu Ser Ile Asp Glu Glu Val
155 130 135 140
156 Tyr Phe Glu Asn Leu Met Gln Leu Val Glu His Tyr Thr Ser Asp Ala
157 145 150 155 160
158 Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val Met Glu Gly Thr
159 165 170 175
160 Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp Ala Leu Asn Met
161 180 185 190
162 Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly Glu Phe Gly Asp
163 195 200 205
164 Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala Val Lys Cys Ile
165 210 215 220
166 Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu Ala Ser Val Met
167 225 230 235 240
168 Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu Gly Val Ile Val
169 245 250 255
170 Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr Met Ala Lys Gly
171 260 265 270
172 Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser Val Leu Gly Gly
173 275 280 285
174 Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu Ala Met Glu Tyr
175 290 295 300
176 Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala Ala Arg Asn Val
177 305 310 315 320
178 Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp Phe Gly Leu Thr
179 325 330 335

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```

180 Lys Glu Ala Ser Thr Pro Arg Thr Arg Ala Ser Cys Gln Ser Ser Gly
181          340          345          350
182 Gln Pro Leu Arg Pro
183          355
185 <210> SEQ ID NO: 10
186 <211> LENGTH: 536
187 <212> TYPE: PRT
188 <213> ORGANISM: Homo sapiens
190 <400> SEQUENCE: 10
191 Met Gly Ser Asn Lys Ser Lys Pro Lys Asp Ala Ser Gln Arg Arg Arg
192 1          5          10          15
193 Ser Leu Glu Pro Ala Glu Asn Val His Gly Ala Gly Gly Gly Ala Phe
194          20          25          30
195 Pro Ala Ser Gln Thr Pro Ser Lys Pro Ala Ser Ala Asp Gly His Arg
196          35          40          45
197 Gly Pro Ser Ala Ala Phe Ala Pro Ala Ala Ala Glu Pro Lys Leu Phe
198          50          55          60
199 Gly Gly Phe Asn Ser Ser Asp Thr Val Thr Ser Pro Gln Arg Ala Gly
200 65          70          75          80
201 Pro Leu Ala Gly Gly Val Thr Thr Phe Val Ala Leu Tyr Asp Tyr Glu
202          85          90          95
203 Ser Arg Thr Glu Thr Asp Leu Ser Phe Lys Lys Gly Glu Arg Leu Gln
204          100          105          110
205 Ile Val Asn Asn Thr Glu Gly Asp Trp Trp Leu Ala His Ser Leu Ser
206          115          120          125
207 Thr Gly Gln Thr Gly Tyr Ile Pro Ser Asn Tyr Val Ala Pro Ser Asp
208          130          135          140
209 Ser Ile Gln Ala Glu Glu Trp Tyr Phe Gly Lys Ile Thr Arg Arg Glu
210 145          150          155          160
211 Ser Glu Arg Leu Leu Leu Asn Ala Glu Asn Pro Arg Gly Thr Phe Leu
212          165          170          175
213 Val Arg Glu Ser Glu Thr Thr Lys Gly Ala Tyr Cys Leu Ser Val Ser
214          180          185          190
215 Asp Phe Asp Asn Ala Lys Gly Leu Asn Val Lys His Tyr Lys Ile Arg
216          195          200          205
217 Lys Leu Asp Ser Gly Gly Phe Tyr Ile Thr Ser Arg Thr Gln Phe Asn
218          210          215          220
219 Ser Leu Gln Gln Leu Val Ala Tyr Tyr Ser Lys His Ala Asp Gly Leu
220 225          230          235          240
221 Cys His Arg Leu Thr Thr Val Cys Pro Thr Ser Lys Pro Gln Thr Gln
222          245          250          255
223 Gly Leu Ala Lys Asp Ala Trp Glu Ile Pro Arg Glu Ser Leu Arg Leu
224          260          265          270
225 Glu Val Lys Leu Gly Gln Gly Cys Phe Gly Glu Val Trp Met Gly Thr
226          275          280          285
227 Trp Asn Gly Thr Thr Arg Val Ala Ile Lys Thr Leu Lys Pro Gly Thr
228          290          295          300
229 Met Ser Pro Glu Ala Phe Leu Gln Glu Ala Gln Val Met Lys Lys Leu
230 305          310          315          320

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```

231 Arg His Glu Lys Leu Val Gln Leu Tyr Ala Val Val Ser Glu Glu Pro
232           325           330           335
233 Ile Tyr Ile Val Thr Glu Tyr Met Ser Lys Gly Ser Leu Leu Asp Phe
234           340           345           350
235 Leu Lys Gly Glu Thr Gly Lys Tyr Leu Arg Leu Pro Gln Leu Val Asp
236           355           360           365
237 Met Ala Ala Gln Ile Ala Ser Gly Met Ala Tyr Val Glu Arg Met Asn
238           370           375           380
239 Tyr Val His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Gly Glu Asn
240           385           390           395           400
241 Leu Val Cys Lys Val Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu Asp
242           405           410           415
243 Asn Glu Tyr Thr Ala Arg Gln Gly Ala Lys Phe Pro Ile Lys Trp Thr
244           420           425           430
245 Ala Pro Glu Ala Ala Leu Tyr Gly Arg Phe Thr Ile Lys Ser Asp Val
246           435           440           445
247 Trp Ser Phe Gly Ile Leu Leu Thr Glu Leu Thr Thr Lys Gly Arg Val
248           450           455           460
249 Pro Tyr Pro Gly Met Val Asn Arg Glu Val Leu Asp Gln Val Glu Arg
250           465           470           475           480
251 Gly Tyr Arg Met Pro Cys Pro Pro Glu Cys Pro Glu Ser Leu His Asp
252           485           490           495
253 Leu Met Cys Gln Cys Trp Arg Lys Glu Pro Glu Glu Arg Pro Thr Phe
254           500           505           510
255 Glu Tyr Leu Gln Ala Phe Leu Glu Asp Tyr Phe Thr Ser Thr Glu Pro
256           515           520           525
257 Gln Tyr Gln Pro Gly Glu Asn Leu
258           530           535
260 <210> SEQ ID NO: 11
261 <211> LENGTH: 13
262 <212> TYPE: PRT
263 <213> ORGANISM: Artificial Sequence ✓
265 <220> FEATURE:
266 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
267      construct
269 <400> SEQUENCE: 11
270 Cys Gly Ala Gly Ser Asp Pro Leu Ala Gly Ser Leu Arg
271 1           5           10
273 <210> SEQ ID NO: 12
274 <211> LENGTH: 10
275 <212> TYPE: PRT
276 <213> ORGANISM: Artificial Sequence ✓
278 <220> FEATURE:
279 <223> OTHER INFORMATION: Description of Artificial Sequence; Note=synthetic ✓
280      construct
282 <400> SEQUENCE: 12
283 Gly Ser Trp Phe Ser Gly Met Cys Ala Arg
284 1           5           10
286 <210> SEQ ID NO: 13

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/929,266

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Input Set : A:\W108365.txt

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L:18 M:270 C: Current Application Number differs, Replaced Current Application No

L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24

L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25

L:459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25

L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25

L:478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26

L:480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26

L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26